Amendments to the Claims

This listing of claims will replace all prior versions of claims in the application.

1. (Original) A method for producing a semiconductor chip, comprising:

applying a photothermal conversion layer comprising a light-absorbing agent and a heat decomposable resin on a light-transmitting support, provided that upon irradiation of radiation energy, said photothermal conversion layer converts the radiation energy into heat and decomposes due to the heat,

preparing a semiconductor wafer having a circuit face with a circuit pattern and a non-circuit face on the side opposite said circuit face, laminating said semiconductor wafer and said light-transmitting support through a photocurable adhesive by placing said circuit face and said photothermal conversion layer to face each other, and irradiating light from said light-transmitting support side to cure the photocurable adhesive layer, thereby forming a laminated body having a non-circuit face on the outside surface,

grinding the non-circuit face of said semiconductor wafer until said semiconductor wafer reaches a desired thickness,

dicing the ground semiconductor wafer from the non-circuit face side to cut it into a plurality of semiconductor chips,

irradiating radiation energy from said light-transmitting support side to decompose said photothermal conversion layer, thereby causing separation into semiconductor chips having said adhesive layer and a light-transmitting support, and optionally

removing said adhesive layer from said semiconductor chips.

2. (Original) The method for producing a semiconductor chip ~~as claimed in~~ of claim 1, wherein a die bonding tape is affixed to the semiconductor wafer before dicing the ground semiconductor wafer.

3. (Currently Amended) The method for producing a semiconductor chip ~~as claimed in~~ of claim 1 ~~or 2~~, wherein said photothermal conversion layer contains carbon black, and/or a transparent filler.

4. (Currently Amended) The method for producing a semiconductor chip ~~as claimed in~~ of claim 2 [[3]], wherein said photothermal conversion layer ~~further~~ contains carbon black, and/or a transparent filler.

5. (Currently Amended) The method for producing a semiconductor chip ~~as claimed in any one of claims 1 to 4~~ of claim 1, wherein laminating said semiconductor wafer and said light-transmitting support through a photocurable adhesive is performed in a vacuum.

6. (Currently Amended) The method for producing a semiconductor chip ~~as claimed in any one of claims 1 to 5~~ of claim 1, wherein said semiconductor wafer is ground to a thickness of 50 μm or less.

7. (Currently Amended) The method for producing a semiconductor chip ~~as claimed in any one of claims 1 to 6~~ of claim 1, wherein said photocurable adhesive layer has a storage modulus of 5×10^8 Pa or more after curing.

8. (Currently Amended) The method of ~~any of claims 1-7~~ claim 1, wherein dicing is performed while recognizing scribe lines, and with alignment via light capable of passing through a) the light-transmitting support and photothermal conversion layer from said light-transmitting support side or b) the semiconductor wafer from the non-circuit side.

9. (New) The method for producing a semiconductor chip claim 3, wherein laminating said semiconductor wafer and said light-transmitting support through a photocurable adhesive is performed in a vacuum.

10. (New) The method for producing a semiconductor chip claim 4, wherein laminating said semiconductor wafer and said light-transmitting support through a photocurable adhesive is performed in a vacuum.

11. (New) The method for producing a semiconductor chip of claim 3, wherein said semiconductor wafer is ground to a thickness of 50 μm or less.

12. (New) The method for producing a semiconductor chip of claim 4, wherein said semiconductor wafer is ground to a thickness of 50 μm or less.

13. (New) The method for producing a semiconductor chip of claim 3, wherein said photocurable adhesive layer has a storage modulus of 5×10^8 Pa or more after curing.

14. (New) The method for producing a semiconductor chip of claim 4, wherein said photocurable adhesive layer has a storage modulus of 5×10^8 Pa or more after curing.

15. (New) The method of claim 2, wherein dicing is performed while recognizing scribe lines, and with alignment via light capable of passing through a) the light-transmitting support and photothermal conversion layer from said light-transmitting support side or b) the semiconductor wafer from the non-circuit side.

16. (New) The method of claim 3, wherein dicing is performed while recognizing scribe lines, and with alignment via light capable of passing through a) the light-transmitting support and photothermal conversion layer from said light-transmitting support side or b) the semiconductor wafer from the non-circuit side.

17. (New) The method of claim 4, wherein dicing is performed while recognizing scribe lines, and with alignment via light capable of passing through a) the light-transmitting support and photothermal conversion layer from said light-transmitting support side or b) the semiconductor wafer from the non-circuit side.

18. (New) The method for producing a semiconductor chip of claim 1, wherein a die bonding tape is affixed to the semiconductor wafer before dicing the ground semiconductor wafer, wherein said semiconductor wafer is ground to a thickness of 50 μm or less.

19. (New) The method for producing a semiconductor chip of claim 1, wherein a die bonding tape is affixed to the semiconductor wafer before dicing the ground semiconductor wafer, wherein said semiconductor wafer is ground to a thickness of 50 μm or less, and wherein said photocurable adhesive layer has a storage modulus of 5×10^8 Pa or more after curing.

20. (New) The method for producing a semiconductor chip of claim 1, wherein a die bonding tape is affixed to the semiconductor wafer before dicing the ground semiconductor wafer, wherein said semiconductor wafer is ground to a thickness of 50 μm or less, and wherein dicing is performed while recognizing scribe lines along with alignment via light capable of passing through a) the light-transmitting support and photothermal conversion layer from said light-transmitting support side or b) the semiconductor wafer from the non-circuit side.